



EMPIRICAL PERSPECTIVES ON INNOVATION & IPRs

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Innovation and Intellectual Property Rights,
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Standard disclaimer applies: The views expressed are those of the author and do not necessarily reflect those of the OECD or its Member countries.

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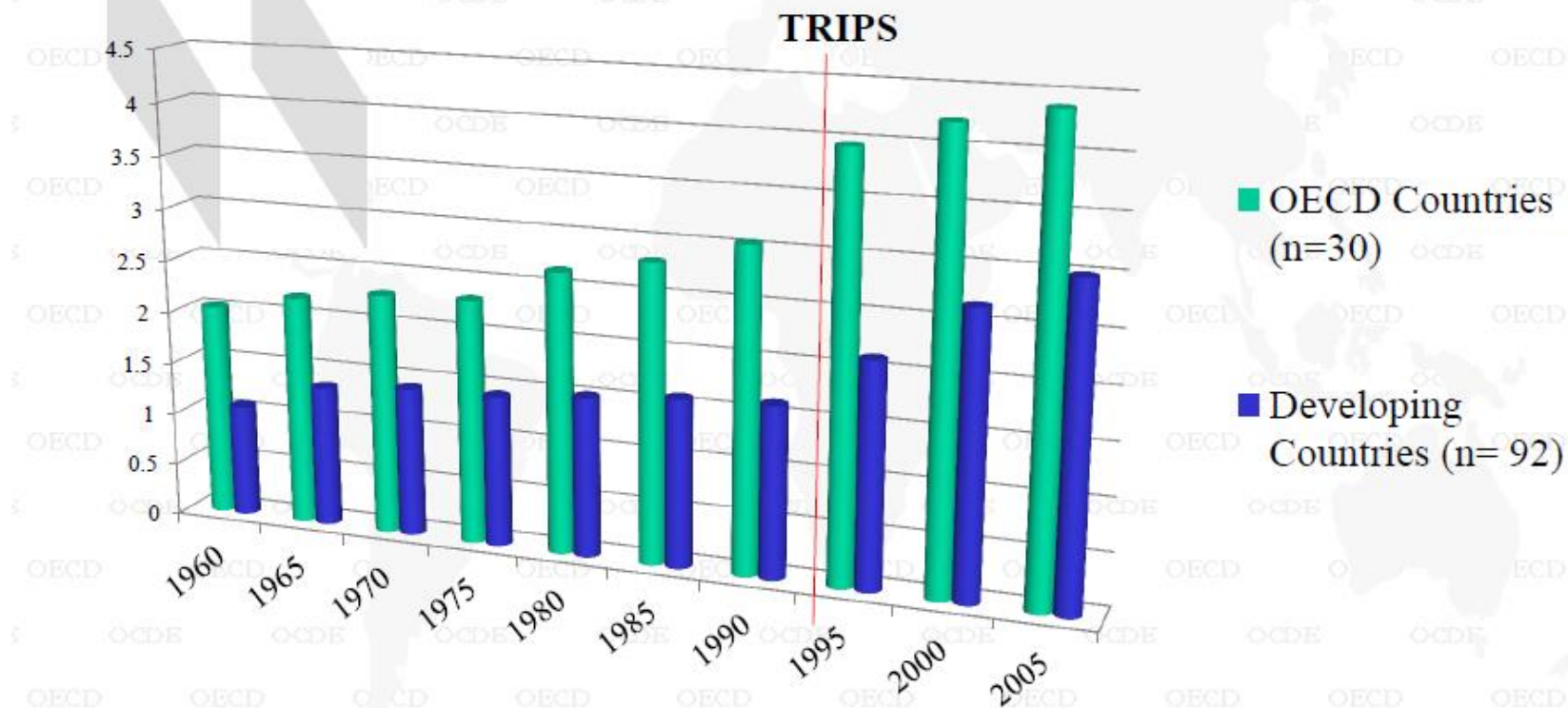


IPR Concepts and Trade Interests

- **Property rights are an important institution:** “they help a man form those expectations which he can reasonably hold in his dealings with others” (Demsetz, 1967)
- *Intellectual* property: **unlike physical goods**, a single bit of intellectual property can be made available simultaneously, repeatedly, non-exclusively: they are non-rivalrous (Romer 1990; Jones, 2004)
- **Incentive problem:** the intangible nature makes it possible to leverage, but also difficult to appropriate economic benefits (Demsetz, 1967)
- **What matters is the total stock of available ideas**, not amount per capita (Jones, 2004)
- **Global framework assuring appropriate rights means potential access** to global stock of ideas via the market
- **IP Sources:** domestic innovation, import or transfer from abroad

Index of Patent Rights

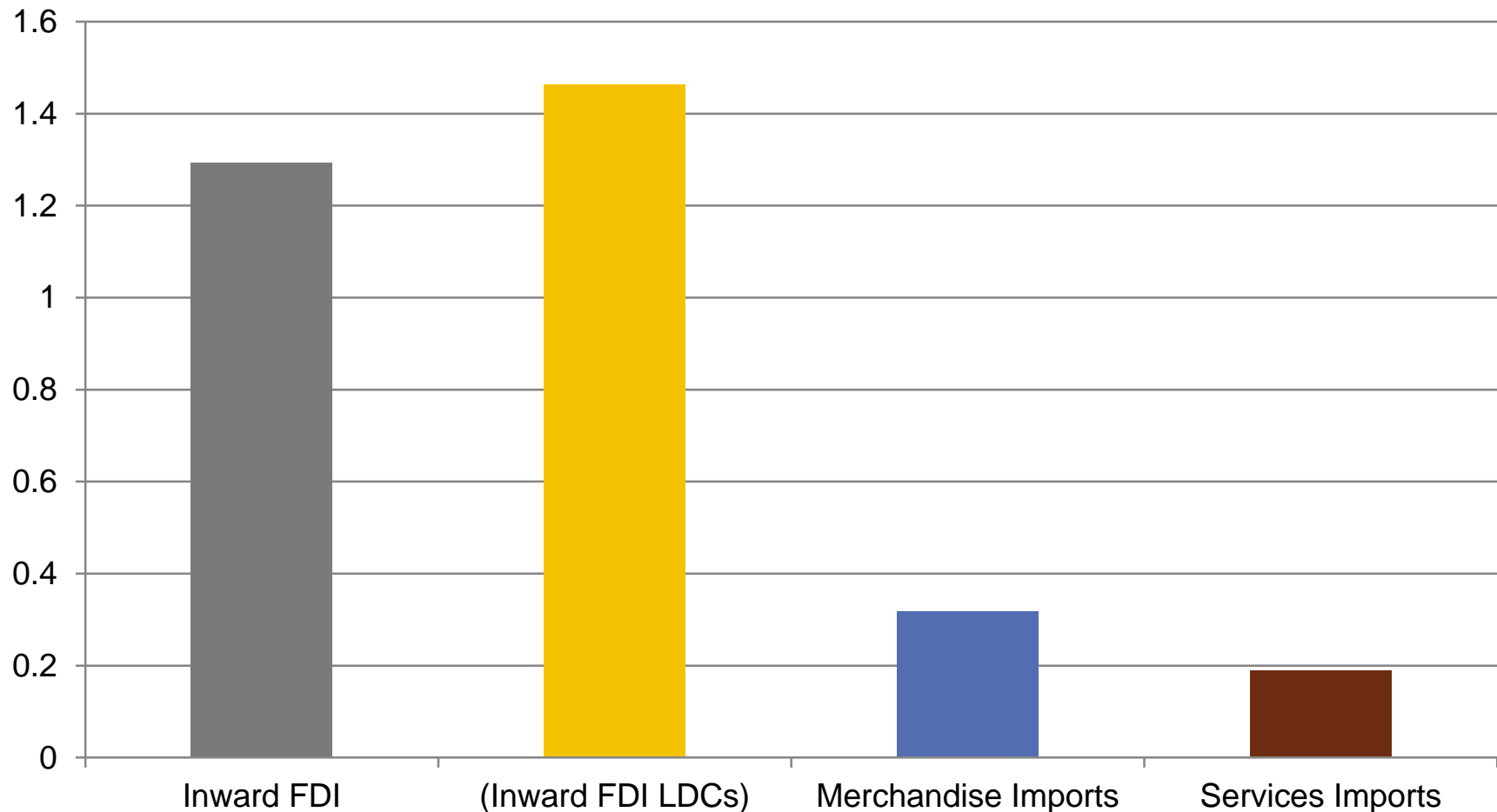
Based on laws on the Books (0 = weak, 5 = strong)



Source data: Park and Lippoldt (2008)

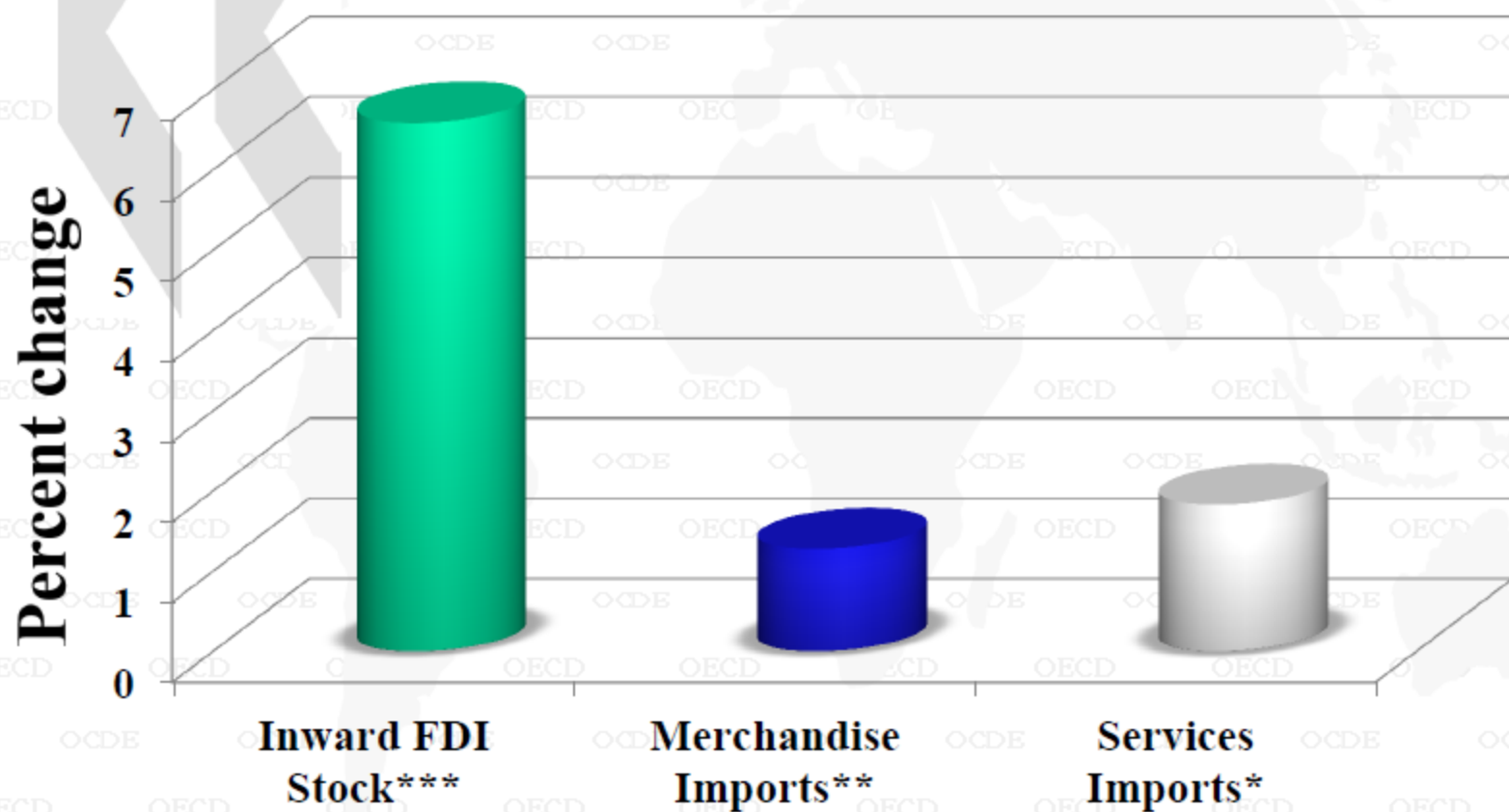


Developing countries: relationship of a 1% increase in the Patent Rights Index to other indicators, 1990-2005



Source: Lippoldt (2011); Park & Lippoldt (2008)

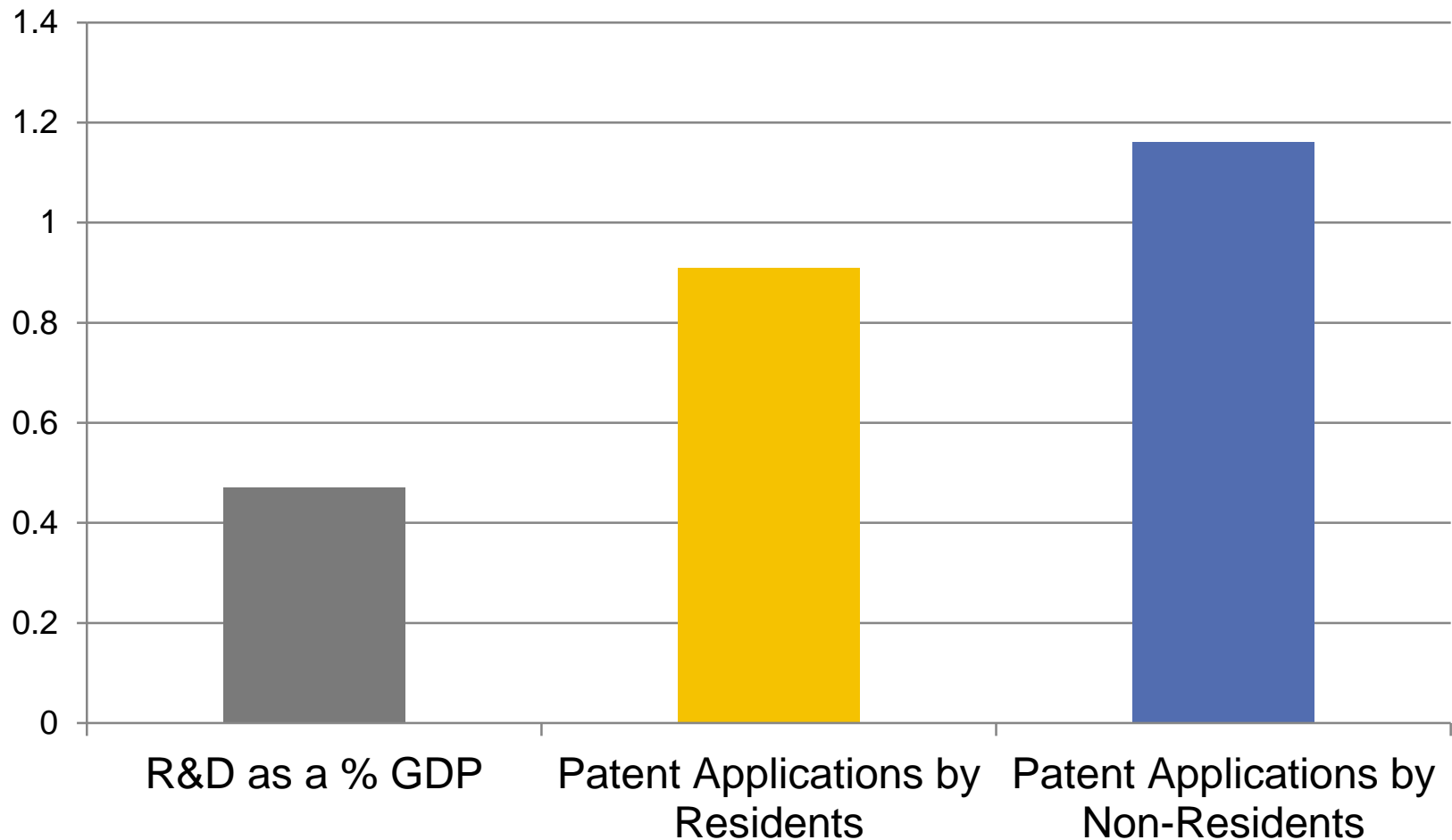
High-Income Countries: Change in int'l econ flows associated with 1% change in strength of patent rights, 1990-2005



Source data: Park and Lippoldt (2008), calculations Ricardo Cavazos (2009).

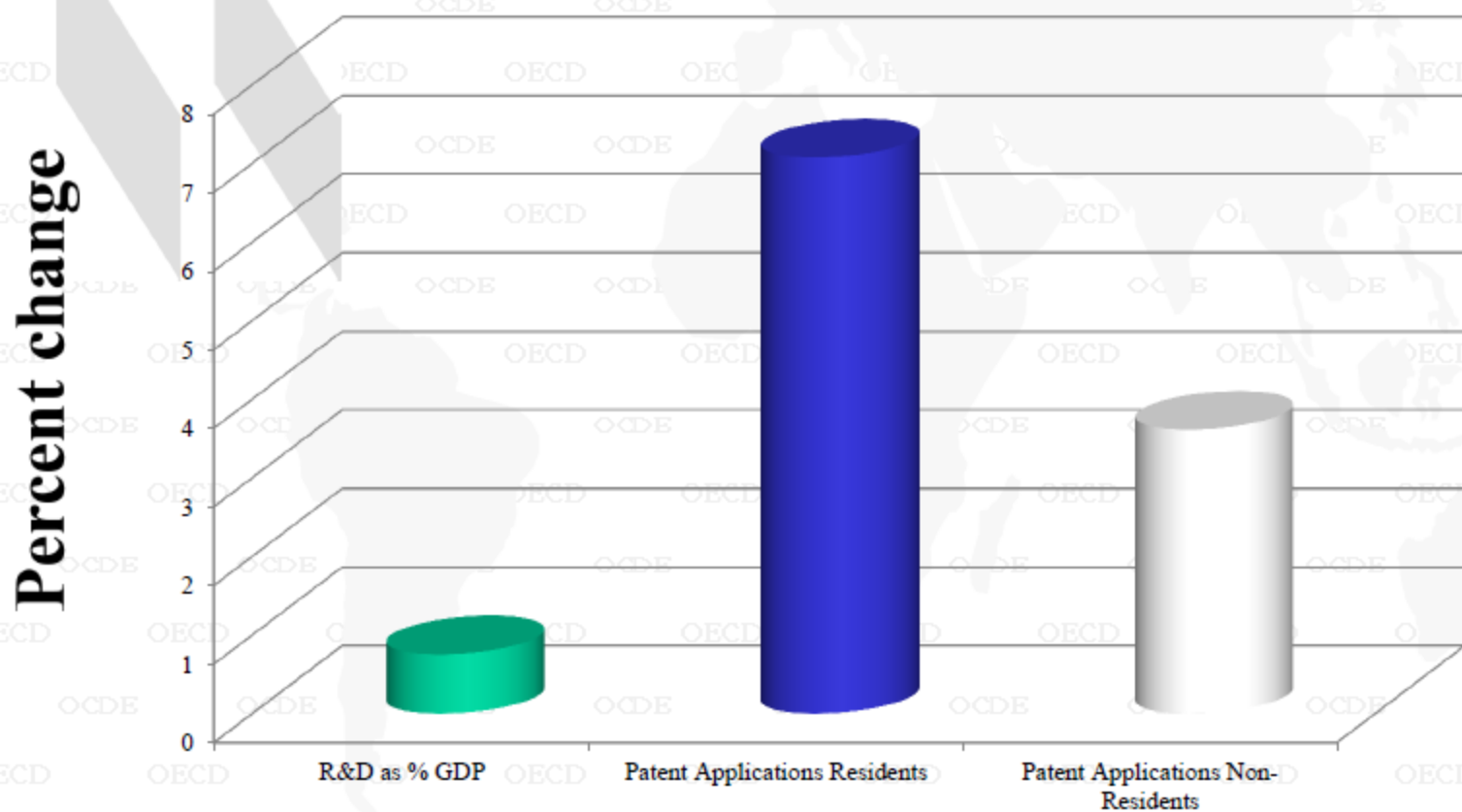


Developing countries: relationship of a 1% increase in the Patent Rights Index to other indicators, 1990-2005



Source: Lippoldt (2011); Park & Lippoldt (2008)

High-Income Countries: Change in innovation associated with 1% change in strength of patent rights, 1990-2005



Source data: Park and Lippoldt (2008), calculations Ricardo Cavazos (2009).



Promoting FDI: Positive Policy Interactions, 1990-2005

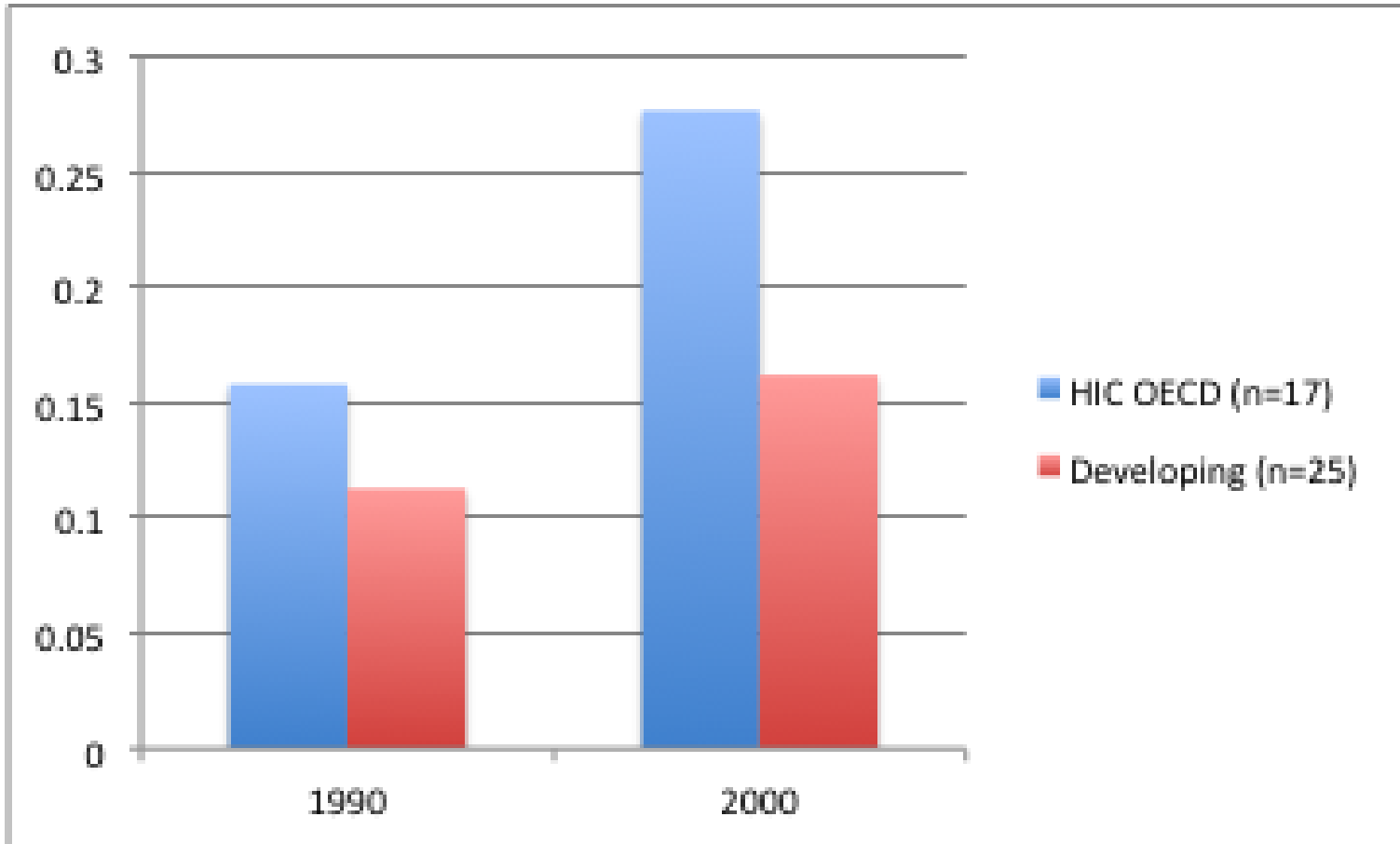
| Policy Variable | Countries with Low Income per capita | Countries with Medium Income per capita | Countries with High Income per capita |
|--|--------------------------------------|---|---------------------------------------|
| FREE TRADE & PATENT PROTECTION | | $\sqrt{^*}$ | |
| DOING BUSINESS & PATENT PROTECTION | $\sqrt{^{**}}$ | | $\sqrt{^*}$ |
| PHYSICAL PROPERTY RIGHTS & PATENT PROTECTION | $\sqrt{^*}$ | | |
| GOVERNMENT EFFECTIVENESS & PATENT PROTECTION | $\sqrt{^*}$ | | |

Standard Errors: *p<0.1 **p<0.05 *** p<0.01
Source: Cavazos, Lippoldt, and Senft (2010)



Technological Achievement Index

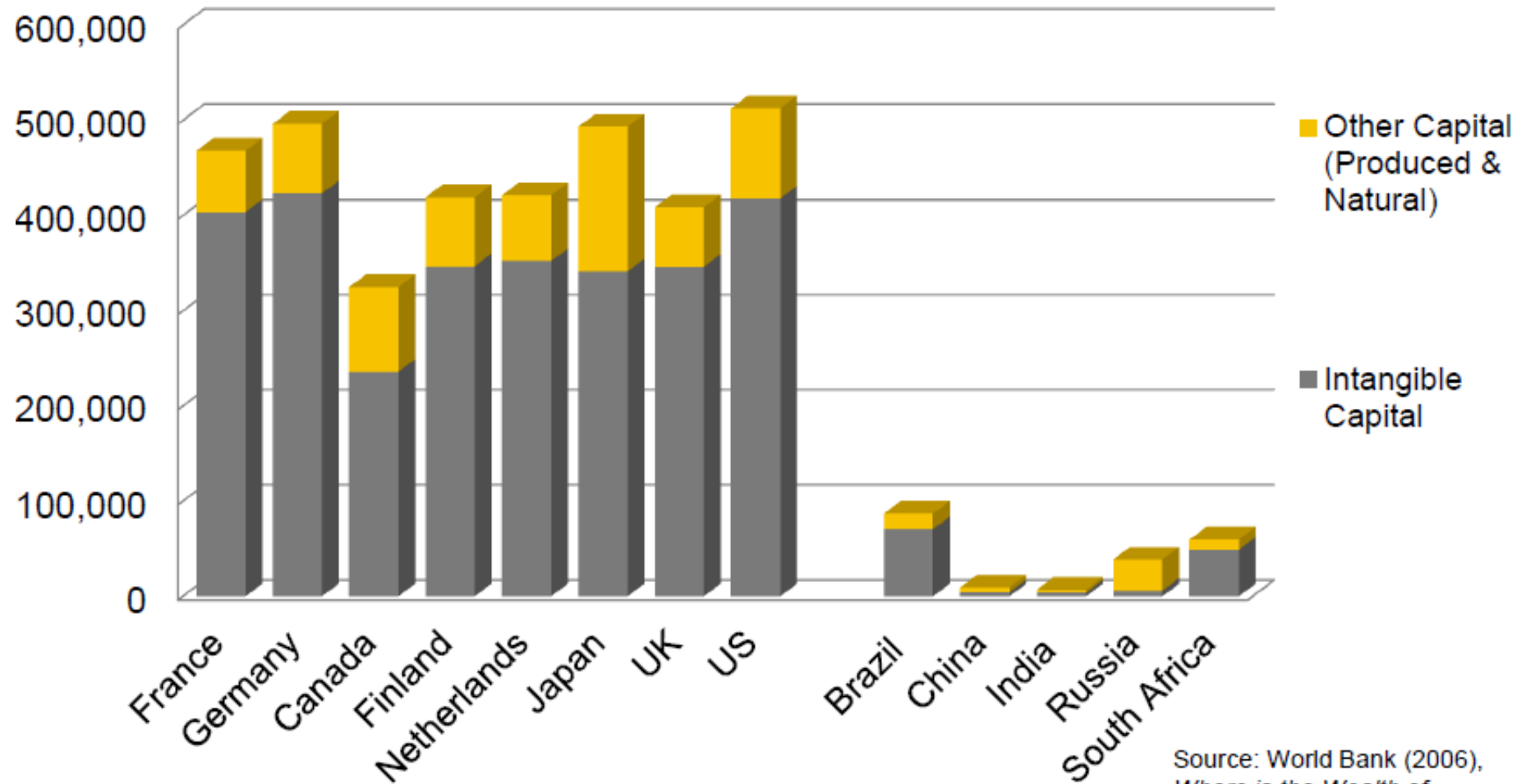
(Regressing \ln Patent Index on \ln TAI = coef 0.3643**, adj r2= 0.66)



Source: GEP (2008)

OECD Trade and Agriculture Directorate

Wealth Estimates By Country: Total Stock Per Capita (2000, in USD)



Source: World Bank (2006),
Where is the Wealth of Nations?



Conclusions

- Presented above: the case of patents. Similar results for © & ™
- IPRs are a key institution for enabling rights holders to capitalise on their innovations & for others to access these innovations via trade & investment (proprietary & open source approaches); promote tech transfer and domestic innovation.
- IPRs are one factor – among others – that influence innovation; **require complementary conditions** to be effective: e.g., awareness, institutional capacity, rule of law, enforcement, human capital, appropriate business regulation
- Innovation is branching & dynamic – care required not to unduly constrain or prejudge technology, competition, entrepreneurship.
- Caveats apply: the relationships shown in charts represent association, not necessarily causality; refer to a specific timeframe and sets of countries, specific conditions; a positive relationship in this range does not mean further protection will always yield similar additional results.
- Next step in our research agenda: trade secrets protection.